

REMARKS

Before entry of this Amendment, claims 1-26 were pending in the application. Claims 21-26 were previously withdrawn. After entry of this Amendment claims 1-20 remain pending under examination. The number of total claims has not been increased, and the number of independent claims has not been increased beyond the number for which payment previously had been made.

Applicants have considered the Examiner's Action of October 3, 2007, and the references cited therein. The following is a brief summary of the Action. Claims 1-11 and 13-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dobrin et al (U.S. Patent No. 6,383,431) in view of Weber et al (U.S. Patent No. 5,143,679) and Boger et al (U.S. Patent No. 4,874,451). Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Dobrin et al, Weber et al and Boger et al, and further in view of Morman et al (U.S. Publication 2002/0119288A1).

For the reasons explained below, applicants respectfully traverse the rejection of claims 1-11 and 13-20 under 35 U.S.C. § 103(a) as unpatentable over Dobrin et al in view of Weber et al and Boger et al.

Referring to the disclosure of the Dobrin et al reference, the Office Action states at lines 3 – 14 of paragraph 2 on page 3, thereof:

The reference does not disclose forming successive nips between the first roll and multiple second rolls with fins. Weber et al. discloses stretching a laminate using multiple rolls with ribs which interact with a single roll with grooves. This use of multiple rolls reduces the rate at which the stretching of the laminate is carried out, reducing the strain on the web and causing less damage to the laminate than the use of a single roll pair. (Col. 17, ll. 57-Col. 18, ll. 16) It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the single roll

pair of first and second roll in Dobrin et al. with multiple roll pairs formed from separate second rolls interacting with the same first roll since this would reduce the strain on the first web as it is stretched and cause less damage to the web than the use of the single roll pair of Dobrin et al. (Col. 17, ll. 57-Col. 18, ll. 16)

However, Weber et al fails to provide a plurality of mating surfaces having fins that are positioned to fit within the grooves of forming surfaces. Instead, Weber et al provides successive pairs of meshing corrugated rolls.

Moreover, Weber et al discloses a laminate web that is passed between two pairs of meshing corrugated rolls. Each pair of rolls exhibits a greater degree of meshing than the preceding pair so that the laminate web is stretched sequentially in stages. It is this sequential stretching of the laminate web that minimizes damage to the laminate web. Thus, as shown in Weber et al Figs. 2A, 2B and 2C, the grooved segment 24a is spaced farther away from the continuous grooves 23 on the lowermost corrugated roll 21 than the grooved segment 24b, which follows successively in the same continuous groove on the lowermost corrugated roll 21. Thus, the degree of penetration of grooved segment 24a is less than the degree of penetration of grooved segment 24b into the same continuous groove 23 on the lowermost corrugated roll 21. This is the manner in which Weber et al teaches how to minimize damage to the laminate web during stretching of the laminate web. Dobrin et al by contrast fails to call for any variation in the degree of meshing between the pair of opposed forming rolls 8 and 9.

Additionally, the Office Action's contention of obviousness is negated by the particular circumstances of the Dobrin et al reference and the Weber et al reference. The Weber et al reference is assigned to the Proctor & Gamble Company and issued in

September 1992. The Dobrin et al reference also is assigned to the Proctor & Gamble Company and issued 10 years later in 2002, based on an application filed in 1999. Moreover, the inventors of the Dobrin et al reference cited the Weber et al reference, and thus the Dobrin et al inventors were aware of the disclosure of the Weber et al reference. Nonetheless, as admitted by the Office Action, Dobrin et al failed even to disclose forming successive nips between the first roll and multiple second rolls with fins. Thus, the Office Action's contention that to do so was obvious to the person of ordinary skill is refuted by the fact that the Dobrin et al inventors, who are persons of greater than ordinary skill because they themselves were inventors, failed to appreciate the desirability of the formation of successive nips between the first roll and multiple second rolls with fins in the context of the Dobrin et al invention. Because the Office action ignores these indisputable facts in arriving at the Office Actions conclusion of obviousness, that conclusion must be deemed clearly erroneous.

Furthermore, Weber et al applies to stretching a laminate material that is formed of at least two plies of material that are secured to one another along at least a portion of their coextensive surfaces wherein one of the plies is stretchable and elastomeric while the second ply is elongatable but not necessarily elastomeric. As explained at Weber et al col. 14, lines 7-24:

The backsheet web 5 and topsheet web 6 and the absorbent pads 3 are brought into contact with one another at combining rolls 15. Just prior to the webs and pads coming into contact with one another, additional adhesive is preferably applied to or both webs which are, for clarity, not shown in FIG 1. The latter adhesive secures predetermined portions of the backsheet, the topsheet and the absorbent pad to one another to form the diaper web 1.

The fully assembled diaper web 1 thereafter preferably proceeds through a pair of bond setting rolls 16, which may require chilling to minimize glue bleed through.

The fully assembled diaper web 1 is then directed through an incremental web stretching employing opposed pressure applicators having three dimensional surfaces which at least to a degree are complimentary to one another system of the present invention, which is shown only schematically as 20 in FIG 1.

Dobrin et al by contrast is concerned with stretching a nonwoven fibrous web rather than a laminate as described in Weber et al. This difference likely explains why the Dobrin et al inventors did not attempt to take any suggestion from Weber et al to use multiple second rolls with fins to form successive nips with the first roll. Such Weber et al teaching likely was deemed inapplicable to what Dobrin et al was doing. Again, the implication to be drawn from these facts clearly favors the non-obviousness of what applicants are claiming.

The Office Action contends at page 3, line 15 through page 4, line 4 that:

Dobrin et al. discloses the adhesive is applied to the stretched web, but is silent as to the specifics of the adhesive applicator, only indicating that such methods are well known to those in the art. (Col. 21, ll. 23-26, 48-50) Boger et al. discloses a device for applying adhesive to a diaper via a number of slots onto specific locations on the web. (Abstract; Figure 1) This allows the accurate placement of adhesive with a relatively simple system which requires little maintenance. (Col. 2, ll. 23-31) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a slot applicator like (sic) that of Boger et al. to apply the adhesive to the corrugated web of Dobrin et al. since Dobrin et al. indicates well-known types of adhesive applicators can be used and since the adhesive applicator of Boger et al. is a adhesive applicator known the diapers arts which would allow the accurate placement of adhesive with a relatively simple system which requires little maintenance. (Col. 2, ll. 23-31)

However, Boger et al does not disclose use of a slot coat adhesive process to apply adhesive directly to a flexible sheet material. Thus, the Office Action relies on applicants' disclosure for the step of applying adhesive to a flexible sheet material with a slot coat adhesive process.

Referring to subparagraphs g, h and i of claim 1, applicants' method requires stretching the first flexible sheet material, applying adhesive directly to the stretched first flexible sheet material with a slot coat adhesive process and joining the stretched first flexible sheet material in a face-to-face configuration to the first surface of the second flexible sheet material. Thus, the adhesive is applied to the stretched first flexible sheet material which thereafter is joined to the second flexible sheet material, and it is the stretched first flexible sheet material that is so joined. Accordingly, the adhesive is applied directly to the stretched first flexible sheet material with the slot coat adhesive process.

According to Boger et al, there is no indication that the substrate to which the adhesive is applied is any way stretchable, much less stretched before the adhesive is applied. A review of Boger et al Fig.1 and the description thereof establishes no apparatus that would in any way stretch the substrate 64 before the adhesive dispensing device 10 supplies hot melt adhesive through its nozzle 20. Nor is substrate 64 stretched before being joined via the adhesive to the non-woven layer 182.

Persons of ordinary skill are unlikely to equate the use of a slot coat adhesive process to apply adhesive to an unstretched web as in Boger et al with the use of a slot coat adhesive process to apply adhesive to a flexible sheet material that has been stretched a plurality of times. Persons of ordinary skill are likely to regard the behavior

of glue on an unstretched web to differ from the behavior of glue on a flexible sheet material that has been stretched a plurality of times.

Concerning claim 6 in particular, the Office Action contends that one of ordinary skill would appreciate the specific number of teeth per inch because “both Dobrin et al and applicant are making laminates for the same purpose, i.e. use in a diaper and therefore would desire the same properties.” However, this statement puts the cart before the horse and therefore relies on hindsight rather than any specific teaching in Dobrin et al or any other reference. Thus, claim 6 is patentable under 35 U.S.C. § 103(a) over Dobrin et al in view of Weber et al and Boger et al for this additional reason.

Each of claims 14 – 20 requires using the slot coat adhesive process to apply the adhesive to the contacting peaks of the first flexible sheet material. However, the Boger et al substrate 64 is flat and not corrugated. These differences between the type of process described in Boger et al and the method of claims 14 – 20 contradict the Office Action’s contention that using a slot applicator as in Boger et al to apply adhesive to a corrugated web of Dobrin et al would be obvious to one of ordinary skill merely because accurate placement of adhesive with a relatively simple system that requires little maintenance is suggested by Boger et al. Boger et al does not suggest that applying adhesive accurately and simply would be achieved by its apparatus if the substrate were to be corrugated rather than flat and unstretched.

Applicants therefore respectfully submit that claims 1-11 and 13-20 are patentable under 35 U.S.C. § 103(a) over Dobrin et al in view of Weber et al and Boger et al.

For the reasons explained below, applicants respectfully traverse the rejection of

claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Dobrin et al, Weber et al and Boger et al, and further in view of Morman et al (U.S. Publication 2002/0119288A1).

The Office Action contends that stretching of polymeric films before joining to other webs is well known and conventional in the laminating arts to make the film breathable. If this statement is taken as true, then one must ask the question why Dobrin et al did not bother to mention it in connection with stretching in the cross direction to create breathability, which Dobrin did mention at col. 20, lines 28-31, as asserted at page 5, lines 16 – 18 of the Office Action. Moreover, this conclusion of the Office Action ignores the other perhaps unwanted effects of stretching in the machine direction, which effects would be appreciated by persons of ordinary skill. Such effects include necking of the web that is being stretched in the machine direction. Because stretching in the machine direction has such necking effects known to persons of ordinary skill, it is not enough for the Office Action to conclude that it would be obvious to do so in the context of applicants' claimed invention without showing why persons of ordinary skill would ignore these other effects and resort to stretching in the machine direction. Morman et al [0011] is not in the context of the present claims, for Morman et al [0011] is stretching a second flexible sheet material to lend breathability to a film. However, in applicants' claims, it is the first flexible sheet material that is to undergo the stretching.

As Morman et al fails to correct the deficiencies noted above in Dobrin et al, Weber et al and Boger et al, applicants therefore respectfully submit that claim 12 is patentable under 35 U.S.C. § 103(a) over Dobrin et al in view of Weber et al and Boger et al, and further in view of Morman et al.

Applicants respectfully request reconsideration and reexamination of claims 1-20, as presented herein, and submit that these claims are in condition for allowance and should be passed to issue.

If any fee or extension of time is required to obtain entry of this Amendment, the undersigned hereby petitions the Commissioner to grant any necessary time extension and authorizes charging Deposit Account No. 04-1403 for any such fee not submitted herewith.

Respectfully submitted,

DORITY & MANNING, P.A.

DATE:

Jan 3, 2008

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